U.S. ENVIRONMENTAL PROTECTION AGENCY
POLLUTION/SITUATION REPORT
Lineage Logistics Ammonia Release - Removal Polrep
Final Removal Polrep

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region IV

Subject: **POLREP #2**
Final
Lineage Logistics Ammonia Release
C4D0
STATESVILLE, NC
Latitude: 35.8152496 Longitude: -80.9633979

To: James Webster, USEPA R4 ERRPPB
Jim Bateson, NCDENR

From: Kenneth Rhame, On Scene Coordinator
Date: 7/10/2020
Reporting Period: 01/15/2020

1. Introduction

1.1 Background

Site Number:	C4D0	**Contract Number:**	
D.O. Number:		**Action Memo Date:**	
Response Authority:	CERCLA	**Response Type:**	Emergency
Response Lead:	PRP	**Incident Category:**	Removal Action
NPL Status:	Non NPL	**Operable Unit:**	
Mobilization Date:	1/10/2020	**Start Date:**	1/10/2020
Demob Date:	1/15/2020	**Completion Date:**	1/15/2020
CERCLIS ID:		**RCRIS ID:**	
ERNS No.:		**State Notification:**	1/10/2020
FPN#:		**Reimbursable Account #:**	

1.1.1 Incident Category

CERCLA
Emergency Response

1.1.2 Site Description

The commercial release of an undetermined amount of ammonia to the atmosphere resulting in a fatality and injuries. Cold Storage Facility.

1.1.2.1 Location

Lineage Logistics
3776 Taylorsville Hwy.

Statesville, Iredell County, North Carolina 28625

1.1.2.2 Description of Threat

Ammonia Vapor Cloud migrating off-site potentially exposing the public.

1.1.3 Preliminary Removal Assessment/Removal Site Inspection Results

Lineage Logistics (the Site) is a cold storage facility that contains 58,000 lbs of anhydrous ammonia for refrigeration.

Subcontractors at Lineage Logistics were conducting demolition work on a unit designated as Freezer #4. The work involved opening two areas in a wall, while opening one area, ice was observed behind the wall. The sub-contractors were clearing away the ice when one sub-contractor worker observed the smell of ammonia. Recognizing the smell, he jumped from the scissor lift (reported to be extended approximately 40 feet high) to escape; he was later hospitalized for ammonia exposure. During the transport of the subcontractor to the hospital, the EMT crew in the ambulance was exposed to ammonia. One subcontractor was overwhelmed by the ammonia vapor, which resulted in a fatality. The local and state fire and hazardous materials (HazMat) teams responded.

The freezers are equipped with ammonia sensors, the internal sensors in Freezer #3 and #4 indicated that they were overwhelmed, “pegged,” over the limitation of the sensor. The upper range of the sensor was

reported to be 250 parts per million (ppm).

2. Current Activities

2.1 Operations Section

2.1.1 Narrative

On 1/10/2020, the Fire Departments/Hazardous Materials Teams from Mooresville, Statesville, Charlotte, Monticello, Asheville, Greensboro, and Raleigh responded to the release. He teams initiated air monitoring. A fan was installed at an open door at one end of the building to ventilate the building. Another door was opened at the other end of the building for exhaust, and a water curtain (fog spray) was deployed to knock down the vapor cloud. The Charlotte HazMat team conducted air monitoring at the exhaust and in the work area and downwind of the water curtain.

The ammonia levels inside the building exceeded immediate danger to life and health (IDLH) concentrations (higher than 300 ppm). Ammonia concentrations “pegged” the Charlotte HazMat team’s air monitoring meters exceeded their detection limits. The EPA mobilized an On Scene Coordinator (OSC) and a Superfund Technical Assessment and Response Team (START) contractor to assist with air monitoring.

Run-off from the water curtain and precipitation entered a storm drain that flowed into a retention pond onsite. Environmental contractors responded with frac tanks, vacuum trucks and tankers to pump and contain water from the stormwater system and the retention pond. The collected run-off water was transported to Shamrock Environmental for disposal.

2.1.2 Response Actions to Date

1/11/2020

The EPA and START contractors began air monitoring surveys. The air monitoring units were located at the closest downwind resident, a between the Site and the closest downwind business (Pratt Industries), near the exhaust door, and one was used as a roving monitor. For air monitoring results, see attached summary table.

The EPA and START contractors collected water samples at the storm drain, the retention pond, at the outfall of the retention pond, and approximately 300 yards downstream. The pH of the retention pond and the outfall was approximately 8.5.

1/12/2020

Site operations continued to focus on ventilating the building to decrease ammonia levels inside. For contractors to make an entry, it was required that the ammonia levels stabilize below 250 ppm.

Entry was necessary to remove frozen food products to reduce ammonia levels in Freezer #3 and #4 (it is believed that ammonia was absorbed into the frozen food and will continue to off-gas as temperatures begin to rise).

The refrigerant lines were purged into an overpack drum full of water, located on the roof, to eliminate the risk of additional rupture.

1/13/2020

The EPA and START contractors continued perimeter air monitoring. No off-site ammonia detections were observed.

Ventilation operations continued. Ammonia concentrations inside the building were observed between approximately 60 ppm and 100 ppm.

Installed four kerosene heaters to attempt to increase temperatures in Freezer #3 and #4.

In an effort To promote off-gassing, the electrical power was restored to the building for lighting and floor heating, in an attempt to thaw the ice on Freezer # 4’s floor.

Due to the three inches of ice present on the floor, it was decided to continue to heat the floor to melt ice. The water will be collected at the lift station via vacuum trucks. (It is estimated that it will take two days to thaw ice on the floor).

Food and Drug Administration arrives onsite.

HazMat teams conduct routine entries to monitor indoor air quality and temperatures.

On 01/14/2020

EPA continued perimeter monitoring, ammonia levels in the office portion of the building stabilized below human health risk levels, allowing entry. A meeting took place between the officials of Linear Logistics and the Unified Command. It was agreed that since no off-site detections/impact of anhydrous ammonia was being observed in air monitoring, and the levels of anhydrous ammonia in the air appeared to be stabilizing, with doors open and active venting; Linear Logistics could assume control of the Site. Linear Logistics hired contractors to begin removing contaminated items from the affected freezers while maintaining containment and air monitoring activities.

2.1.3 Enforcement Activities, Identity of Potentially Responsible Parties (PRPs)

Lineage Logistics
3776 Taylorsville Hwy
Statesville, NC

2.1.4 Progress Metrics

Waste Stream	*Medium*	*Quantity*	*Manifest #*	*Treatment*	*Disposal*

2.2 Planning Section

2.2.1 Anticipated Activities

EPA demobilized on 01/14/2020. Linear Logistics will continue to remove contaminated items from the freezer for proper disposal and maintain containment of any impacted run-off.

2.2.1.1 Planned Response Activities

Demobe EPA assets.

2.2.1.2 Next Steps 2.2.2 Issues

Disposal of collected contaminated run-off water.
Disposal of contaminated freezer items.

2.3 Logistics Section

No information available at this time.

2.4 Finance Section

No information available at this time.

2.5 Other Command Staff

No information available at this time.

3. Participating Entities

No information available at this time.

4. Personnel On Site

No information available at this time.

5. Definition of Terms

No information available at this time.

6. Additional sources of information

No information available at this time.

7. Situational Reference Materials

No information available at this time.